CONFIDENTIAL

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60648/C-379

June 16, 1959

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Subject: Contract RD-155 - Proposal for Lightweight Conveyor

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Dear

After delivery of the revised conveyor system furnished under Task Order No. 2 of the subject contract, we were requested by the project officer to submit a proposal covering the design and fabrication of a lightweight system incorporating several desired revisions. In response to this request, the following proposal is submitted:

Furnish all services and material to design and manufacture and install a lightweight conveyor system in accordance with the requirements set out in the enclosed memorandum.

Total Estimated Cost	$21,628.00
Fixed Fee.	$ 1,513.00
Total CPFF	$23,141.00

In providing this revised conveyor system, we will make maximum use of lightweight materials and techniques consistent with good design practice and reasonable cost. This should result in a substantial reduction in weight as compared with the existing conveyor system.

It is estimated that a period of 15 weeks following receipt of authorization to proceed will be required to complete the proposed program. This period includes a two week period for customer review and approval of the design before fabrication of the conveyor.

It is hoped that this proposal meets with your approval, and that we can be authorized to proceed with the proposed task in the near future.

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Very truly yours,

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TJH/jf

Encls:
(A) Two Copies Cost Analysis EP-3006.03B
(B) Two copies IOM dated 16 June 1959
(C) Two Copies Dwg. No. 3006-000003B

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Copy: Contracting Officer (w/1 copy of e

INTEROFFICE MEMORANDUM

June 16, 1959

From: [redacted] 25X1

To:

SUBJECT: DESIGN CRITERIA FOR A LIGHTWEIGHT CONVEYOR (PHASE III)

Copies to: [redacted] 25X1

1. Drawing No. 3006-000003B shows the final configuration for a lightweight conveyor as established by experimentation during Phase I and Phase II. The detailed requirements of this system were delivered by the customer to the AAInc. Project Manager at Friendship Airport on 28 May 1959 as follows:

1. Provide shoe brakes at the end of each 10 foot conveyor section. Every 10 foot section must be interchangeable with each other and with the transition section.

2. Provide 'D' ring tie downs on vertical flange of roller bed and transition sections. Install "D" rings by riveting.

3. Provide an 18 inch wide fold-up bumper walk (quick disposal). Walk is to be made of plywood coated with non-skid dark green or black paint.

4. Provide the lightest weight system possible.

5. All rollers in the transition section are to be tapered.

6. Provide roller jamb brakes in the forward transition section.

7. Provide a 10 inch clear walkway in the center of the transition section.

8. All connections must be simple, quick disconnect type.

9. Do not arrange guard rail as integral unit of the system.

10. Provide "Day-glow" shoe brake actuator arms in the straight sections to provide the operator with a target for releasing the brakes.

11. Hinge the transition section for folding if weight allows.

12. Use standard 18 inch rollers in the straight sections. Use aluminum for bed rails and rollers.

13. Keep general configuration of guard rail. Lighten as much as practical.

14. Keep general configuration of door protection plates - no cotter pins - quick removal.

15. Eliminate transition section bed overhang on sides as much as possible.

16. Manufacture at least three clip-on fenders to protect the door and static lines. This fender is to be located in the upper aft corner of the forward door opening.

17. Keep the general arrangement of the straight section spacing arrangement. Close the gap between the straight section and the transition section rollers as much as possible.

18. If pin-type disconnects are used, chain the pins to the mating piece.

19. Insure rapid and easy replacement of component parts of the system.

20. Since it is anticipated that other conveyors will be built, spares should be kept to a minimum.

21. Six (6) chock blocks (one per section) are required - painted as before. Lighten as much as possible.

22. The conveyor must handle a maximum bundle of 2000 lbs. on a 44" x 44" pallet.

23. Submit three prints of the assembly prior to manufacture.

2. The costs submitted reflect the added cost of making the conveyor system as light as possible. For instance, fiberglas tapered rollers are contemplated rather than standard rollers with an epoxy (tapered) cover. In addition there are new design requirements such as brakes on the tapered rollers. It is believed to be possible to provide such brakes; however, the exact solution cannot be determined without a period of design study.

3. It is estimated that a period of 20 man weeks will be required for design and an additional six weeks for manufacture after customer approval of the design is received. Because of an unusually heavy work load in Engineering at the present time, it is expected that the design could be complete by the end of July 1959. This would mean that delivery of the conveyor could be made by the end of September 1959, provided that authorization to proceed is received promptly. (This allows two weeks for approval of the design by the customer).

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TITLE *Conveyor, Rev. B. (Phase III)* Sheet *1*

COST ANALYSIS EP *3006.03B* of *1*

ITEM NO. / DESCR.	*1* *Rev. & Mfg. One (1) Light-Wt. Conveyor*							
COST ELEMENT	HRS. & RATE	DOLLARS	HRS. & RATE	DOLLARS	HRS. & RATE	DOLLARS	HRS. & RATE	DOLLARS
Engineering Labor	Hrs. *800* Rate *5.00*	*4,000.00*	Hrs. Rate		Hrs. Rate		Hrs. Rate	
Engineering Overhead	Rate *80* %	*3,200.00*	Rate %		Rate %		Rate %	
Manufacturing Labor	Hrs. *1850* Rate *2.30*	[illegible]	Hrs. Rate		Hrs. Rate		Hrs. Rate	
Manufacturing Overhead	Rate *120* %	[illegible]	Rate %		Rate %		Rate %	
Tool Labor	Hrs. Rate		Hrs. Rate		Hrs. Rate		Hrs. Rate	
Tool Overhead	Rate %		Rate %		Rate %		Rate %	
Tool Material								
Subcontract		*250.00*						
Material & Purch. Parts		*2500.00*						
Direct Charges								
Cost Excluding G&A		*19,311.00*						
G & A	*12* %	*2,317.00*	%		%		%	
Total Estimated Cost		*21,628.00*						
Profit or F F	— %	*1,513.00*	%		%		%	
Selling Price or CPFF		*23,141.00*						
Unit Price								
Extended Price or CPFF								

Submitted to ______ Prepared by [redacted] *6-8-59* Engineering Approval [redacted]

Customer's Prop. Ref. ______ Checked by [redacted] Manufacturing Approval [redacted]

W/Inc. Prop. Letter ______ General Management Approval [redacted]

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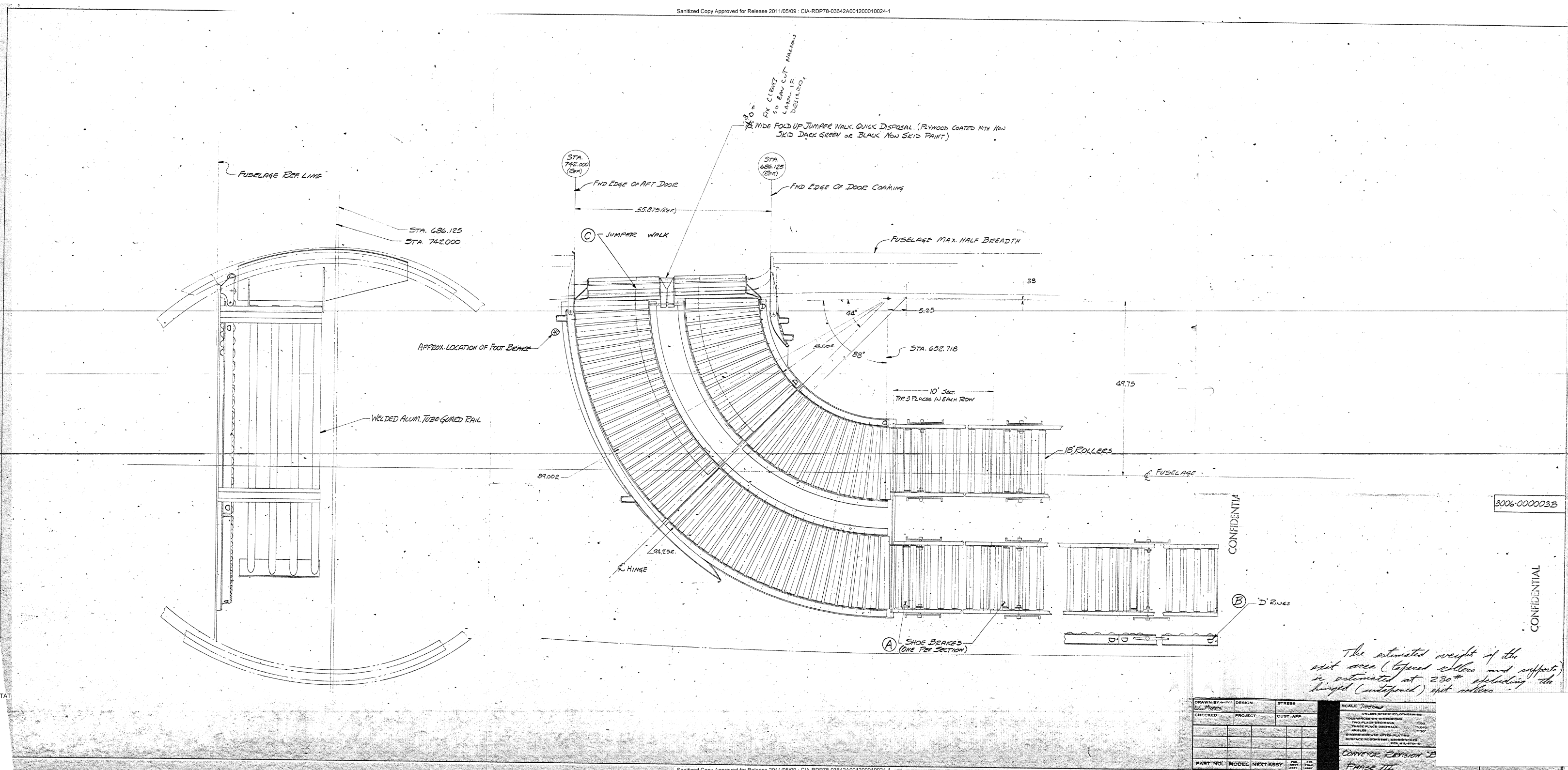

The estimated weight of the exit area (tapered rollers and supports) is estimated at 230# efcluding the hinged (untapered) exit rollers.